Balby-with-Hexthorpe Urban District Council.

Annual Report

of

The Medical Officer of Health

to the

Urban District Council,

For the year ending December 31st, 1907.

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BALBY-WITH-HEXTHORPE URBAN DISTRICT COUNCIL.

REPORT FOR THE YEAR 1907.

To the Chairman and Councillors,

Gentlemen,

I have the honour to present to you my Report on the health of the Urban District of Balby-with-Hexthorpe during the year 1907, prepared in accordance with the Regulations and Requirements of the Local Government Board.

I am,

Your obedient Servant,

D. LECHMERE ANDERSON,

Medical Officer of Health.

PUBLIC HEALTH OFFICE,

DONCASTER,

February, 1908.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1907.

PHYSICAL FEATURES AND GENERAL CHARACTER OF DISTRICT.

The Urban District of Balby-with-Hexthorpe is situated to the South of the Borough of Doncaster, being bounded on the South by the parish of Warmsworth, on the East by the parish of Loversall, and on the West by the River Don.

The geological formation of the subsoil is mainly of red sand. Balby slopes away from the Doncaster and Sheffield main road to the South-east, where a portion of the land is very low and not under-drained, the height above the sea level being 19 feet. The highest point in Balby is about 105 feet above the sea level. Hexthorpe, which is on the Don side of the Great Central Railway, has a subsoil of clay and shale, or loosely bedded limestone. The district is more even in formation, and is about 42 feet above the sea level.

The entire area of Balby-with-Hexthorpe is 1,613 acres. The number of inhabited houses at the last Census was 1,445, with an average number of persons per house of 4·6.

POPULATION.

The estimated population of Balby-with-Hexthorpe at the middle of 1906 was 8350, showing an increase of 1569 over the ascertained population (6781) of the census year—1901. This estimate shows a very considerable increase, yet there is little reason to believe it is over-estimated. The growth of the District has continued to make rapid strides, 130 plans for new houses having been passed by your Council during the past year, in comparison with 85, 49, 56, 111, and 52 in the five preceding years.

BIRTH-RATE (28·5).

During 1907, 238 births were registered within the District. This number very closely approaches the average for the previous ten years, which is 237, but it falls very considerably below the number of births which occurred in 1906, when 282 were registered,—a figure which constitutes the record for Balby-with-Hexthorpe. 1905 ran 1906 very closely, with 261 births, while, strangely enough, the lowest return for the ten years was 1904, with 213 births. The Birth-rate for the past twelve months is 28·5, a rate which may be considered satisfactory when compared with that of England and Wales and the other Urban Divisions of the Township, but exhibits a woeful decline when compared with the average (34·0) of the previous ten years, and the 37·5 of 1895 and the 36·2 of 1901. The lowest previously recorded rate was 28·0 in 1904.

The Rates for the various Divisions of the Township are as follows :—

	1907.	1906.	Average. 1897-1906.
BALBY-WITH-HEXTHORPE	**28·5**	34·0	34 0
Doncaster	23·1	24·3	26·9
Wheatley	26·0	26·8	30·1
Combined Township ...	24·4	26·5	28·4
England and Wales ...	26·3	27·0	...

DEATH RATE (12·7).

During 1907, 191 deaths were registered, yielding what appears to be the high Death-rate of 22·8 per 1,000 ; but from this number there have to be subtracted the deaths of 88 non-residents in Public Institutions in the District, and to it have to be added 3 deaths of residents registered in Public Institutions beyond the District. When this is done, the actual number of deaths strictly belonging to Balby-with-Hexthorpe is reduced to 106, making the Death-rate—the true or correct Death-rate for the past year—12·7. This figure is slightly higher than the return for the previous year, 11·4, the lowest recorded for the district ; but it is very considerably below the average of the ten preceding years—14·5. The highest and lowest death rates during the past decade were 18·3 in 1900, and 11·4 in 1906.

The Death-rates of the various Divisions of the Township are as follows :—

	1907	1906.	Average 1897-1907.
BALBY-WITH-HEXTHORPE	**12·7**	11·4	14·5
Doncaster	17·5	15·2	16·6
Wheatley	14·9	15·2	11·8
Combined Township ...	16·3	14·5	15·8
England and Wales ...	15·0	15·4	...

INFANTILE MORTALITY RATE (134).

The deaths of 32 children under 12 months of age were registered during the year, in contrast with 34 in 1906, and an average number of 34 deaths of infants in the preceding ten years. The rate for the past year is 134 per 1,000 births, and marks an increase on the 117 of 1906, but still exhibits a very satisfactory decrease when compared with 143, or the average of the years 1897-1906. The Infantile Mortality Rate of the District has been subject to somewhat wide fluctuations, for while in 1900 it rose to 192, it fell to 105 in the succeeding year.

The Infantile Mortality Rates for the various Divisions of the Township are as follows :

	1907.	1906.	Average. 1897-1906.
BALBY-WITH-HEXTHORPE	**134**	117	143
Doncaster	151·6	164	180
Wheatley	131	140	134
Combined Township ...	145	150	168
England and Wales ...	118	133	...

For the past three years the Local Government Board has required a special return (Table V.) to be supplied, with particulars of the various causes and ages at death of the infants who have succumbed within the twelve months concerned. Analysing Table V., it is found that of the 32 cases of death, 12 occurred during the first four weeks of life, and of this number no fewer than 9 were under 1 week old. None of the other age periods exhibit such a proportion, for the remaining 20 deaths of children betwen 1 and 12 months of age are divided fairly equally between the various monthly periods. Of the 12 deaths which occurred under 4 weeks of age, 9 were unavoidable, for 8 were premature births, 1 child had congenital defects sufficient to account for death. The other 3 cases which more or less closely approach the class of preventable deaths were convulsions (1), bronchitis (1), and other causes (1). Of the 20 deaths in older infants, only 2 were from the common infectious diseases (1 of measles, and 1 of whooping cough). Diarrhœal diseases produced 7 deaths ; in 1906, 10 deaths were due to these causes. Two deaths were registered as due to debility. No deaths were ascribed to Tuberculous Diseases, while of other diseases, 1 death was registered as meningitis, 5 as bronchitis, 2 as pneumonia, and 2 of other causes. It is gratifying to note that no cases of suffocation from overlying were registered.

Further particulars concerning Infantile Mortality are to be found in the table referred to.

Of the total number of deaths, 11, or 33 per cent. (roughly) may be justly placed within the class of unavoidable deaths.

An Act of Parliament—the Notification of Births Act—has recently become law, which has as its primary motive the reduction of the waste of infantile life which is constantly going on within our midst. The Act, which is an adoptive one, provides that written notice of the birth of every child should be notified to the Medical Officer of Health within thirty-six hours, by the father of the child and by any person in attendance on the mother at the time of, or within 6 hours after, the birth ; and that local authorities shall supply, free of charge, addressed and stamped post-cards to any medical practitioner or midwife who applies for the same. The Act also imposes a penalty where such notice of birth is not given. So far, I have not, as yet, recommended its adoption by the District Council.

The preventive methods which may be adopted to reduce Infantile Mortality embrace :

The circulation of cards of instruction as to the feeding of infants.

The employment of special female health visitors, who give instructions regarding the feeding of infants, and many sanitary measures connected with the home.

The establishment of sterilised milk depots.

Improvement of slum property.

Increased Attention to Scavenging, and this should be placed first.

DEATHS FROM ZYMOTIC DISEASES.

The term Zymotic Death-rate covers the death-rate from the seven principal Zymotic Diseases, namely :—Small-pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, " Fever " (Typhus, simple, continued, and Enteric), and Diarrhœa. To this list I have added Influenza.

The rate is a popular but very unsafe standard of the health of a community, as it is liable to great fluctuation according to the epidemic prevalence of one or other of the diseases mentioned. It may, however, be safely held that a high death-rate from Enteric Fever, Diphtheria, or Diarrhœa implies a defective sanitary state, if accidental or temporary causes, such as climatic conditions, or accidental contaminations of milk or water, can be excluded.

During the past twelve months, 15 deaths from Zymotic Diseases were registered, which gives a Zymotic Death-rate of 1·8 per 1,000. The deaths were due to: Diarrhœa, 7; Whooping Cough, 1; Measles, 2; Scarlet Fever, 1; Diphtheria, 1; and Influenza, 3. Nine deaths occurred in 1906, 9 in 1905, 9 in 1904, while in 1903, 21 deaths were registered.

The Zymotic Death-rates for the various Divisions of the Township, and England and Wales, are as follows:—

BALBY-WITH-HEXTHORPE	1·8
Doncaster	1·5
Wheatley	1·5
Combined Township	1·6
England and Wales	1·26

TUBERCULAR DEATH RATE.

During the past year, only 4 deaths from Tubercular Disease occurred, all of which were due to Phthisis (consumption of the lungs), giving a Tubercular Death-rate of ·47 per 1,000, in contrast with 0·98 in 1906, and 0·63 in 1905.

As 106 deaths of "residents" occurred last year, it will be seen that 1 out of every 24 deaths was due to Tubercular Disease. In 1906, 1 death occurred in every 12 from this cause, and in 1905, 1 out of every 21.

The following table shows the extent to which Tubercular Disease is present in the Combined Township of Doncaster, Balby-with-Hexthorpe, and Wheatley, with the average number of fatal cases for the six previous years.

Combined Township—Doncaster, Balby-with-Hexthorpe, and Wheatley.

Deaths at various age-periods from Tubercular Diseases in the year 1907, with average for preceding 6 years, compared with Deaths from Miasmatic Diseases and from all causes:—

	Year.	Number of Deaths.					Proportion of Deaths from Tubercular Diseases to Deaths from all causes.
		Phthisis.	Other Tubercular Diseases.	All Tubercular Diseases.	All Miasmatic Diseases.	All Causes.	
All Ages	1907	50	18	68	70	717	1 : 10·5
	Average 1901-6	40	16	56	70	621	1 : 11·08
Infant Period 0-5 years.	1907	0	12	12	51	239	1 : 19.9
	Average 1901-6	3	11	14	58	234	1 : 16·7
School Period 5-15 years.	1907	5	2	7	3	21	1 : 3
	Average 1901-6	1	1	2	4	15	1 : 7·5
Adolescent Period 15-25 yrs.	1907	9	1	10	1	21	1 : 2·1
	Average 1901-6	7	1	8	1	20	1 : 2·5
Mature Period 25-65 yrs.	1907	35	3	38	7	233	1 : 6·1
	Average 1901-6	29	2	31	4	193	1 : 6·2
Post-Mature Period 65+years.	1907	1	0	1	8	202	1 : 202
	Average 1901-6	1	1	2	2	159	1 : 79·5

From the above table it will be seen that a very considerable increase occurred in the number of deaths from Tubercular Disease during the past twelve months, when compared with the average number of cases of the previous six years. Altogether, 68 deaths, 50 from Phthisis and 18 from other Tubercular causes being registered, in contrast with an average number of 56 deaths— 40 from Phthisis and 16 from other Tubercular Diseases. This increased fatality is more fully manifested, when it is seen that, while in former years 1 out of every 11 deaths was due to Tubercular Disease, in 1907, 1 death out of every 10 was ascribed to this type of disease.

A slight decrease occurred in the Infant period (0—5 years), no deaths from Phthisis, and 12 from other Tubercular causes being registered, in contrast with an average yearly number of 3 from Phthisis, and 11 from other causes. One death in 16·7 usually occurred in this period, but last year's return is only equal to 1 in 19·9, or practically one out of every twenty deaths was due to this cause.

The School-period (5—15 years) shows a very considerable increase in the number of fatal cases, for while the average number of deaths in previous years has only been 2 (1 of Phthisis and 1 from other Tubercular causes), last year 7 deaths (5 from Phthisis and 2 from other Tubercular Diseases) were registered. As 21 deaths from all causes occurred at the School-period age, it will be seen that of this number no less than 1 out of every 3 were due to Tubercle in one shape or other, in contrast with 1 death out of every 7·5 in previous years.

In the Adolescent-period (15—25 years), there is also an increase, small, doubtless, but still serving to stamp 1907 as having been somewhat of a black year so far as "the white man's plague" is concerned in the Township, for 10 deaths (9 from Phthisis and 1 from other Tubercular causes were registered, in contrast with 8 (7 and 1) in previous years. During 1907, there were 21 deaths from all causes, and as no less than 10 of these were due to Tubercle, or ONE OUT OF EVERY 2·1 DEATHS, the averages which consumption causes at this period of life will be at once manifested. The yearly average number of deaths at this period of life is 20, and of these 1 out of every 2·5 has been caused by "Consumption" or allied form of disease.

The Mature-period (25—65 years) also exhibits an increase, 38 deaths (35 and 3) having been registered, in contrast with 31 (29 and 2) in previous years. During this period of life, 233 deaths occurred, against 193 (six years' average), and of these 1 out of every 6·1 and 1 out of every 6·2 were due to Tubercular disease.

In the Post-mature period (65 years), only 1 fatal case occurred, in contrast with 2 in previous years. Of the total number of deaths which occurred in old people, only 1 out of every 202 was due to Consumption. 1 out of 79·5 was the average for the previous six years.

Figures such as these show how much yet remains to be done before such a "preventable" disease as Phthisis is finally stamped out. To effect this, there is only one essential, and that is that the Public should become convinced that the disease is, in the strict meaning of the word, preventable. Let the public once be convinced of this, and that even if the disease is acquired it it not necessarily fatal, and methods to banish it from our midst will be so eagerly adopted, with the result that year by year will show great diminution in its ravages, and the reasonable hope created that within a not very distant future the much-to-be-desired result will be attained.

VOLUNTARY NOTIFICATION OF PHTHISIS.

(CONSUMPTION OF THE LUNGS).

The Voluntary Notification of Phthisis came into force in this District on January 1st, 1903, the notification being confined to cases of Tubercular Disease of the Lungs. For such information, the customary notification fee is paid, and in order to obviate any difficulty which might arise over questions of diagnosis, the presence of Tubercular Bacilli in the sputum, as determined by Bacteriological Examination, is the basis of such notification. For such examination, the County Council Authority provides facility free of charge to all practitioners.

Three cases of the disease were notified during the year. The procedure adopted after notification is as follows:—The house is visited and inspected, and necessary measures of disinfection or other precautions ascertained. As the utmost pains are taken to act in complete agreement with the notifying practitioner, and as the examination of the house, surroundings, etc., cannot but act in the patient's benefit, it is to be hoped that a much more active response will be made to the Council's request to practitioners to notify the disease.

In 1906, 2 cases of Consumption were notified; in 1905, 0 cases; in 1904, 4 cases; and in 1903, 3 cases.

NOTIFICATION OF INFECTIOUS DISEASES.

During the past year, only 18 cases of Infectious Disease were notified by Medical Practitioners, a figure which marks a very considerable decrease on previous years' returns. The figures for the years 1901-06 were 66, 64, 39, 42, 58, and 85. Of this year's cases, 10 occurred in Balby and 8 in Hexthorpe. The cases from Balby included 2 of diphtheria, 1 of erysipelas, 5 of scarlet fever, 1 of enteric fever, and 1 of puerperal fever. In Hexthorpe there were 3 of diphtheria, 1 of erysipelas, and 4 of scarlet fever. Of the total number of cases, 9 (50 %) were of scarlet fever. Ten of the cases (6 of scarlet fever, 3 of diphtheria, and 1 of enteric fever) were removed to hospital for treatment.

The following table gives full particulars of the amount of Infectious Disease which has occurred in the District since the commencement of my term of office :—

1901. No. of Cases.	1902. No. of Cases.	1903. No. of Cases.	1904. No. of Cases.	1905. No. of Cases.	1906. No. of Cases.		1907. No. of Cases.	1907. District. Balby.	1907. District. Hexth'pe	1907. Removed to Hospital. Balby.	1907. Removed to Hospital. Hexth'pe
0	1	4	0	3	0	Small-pox	0	0	0	0	0
7	5	15	7	3	3	Diphtheria	5	2	3	1	2
37	30	9	26	37	68	Scarlet Fever ...	9	5	4	3	3
18	23	7	6	3	8	Enteric Fever ...	1	1	0	1	0
0	0	1	0	0	0	Puerperal Fever ...	1	1	0	0	0
4	5	3	3	12	6	Erysipelas	2	1	1	0	0
66	64	39	42	58	85		18	10	8	5	5

SMALL-POX (0).

This disease is for the second year conspicuous by its absence. The last cases occurred in 1905, when 3 were notified.

DIPHTHERIA (5).

Five cases of Diphtheria were notified, which marks an increase over the return of 1906, when only 3 cases occurred. The average number of cases during the years 1901—06 is 6·6. Of this year's cases, 2 occurred in Balby and 3 in Hexthorpe ; of these 2 were treated at home (one terminating fatally), and 3 were removed to Carr Hospital (no deaths). The average stay in Hospital was 25 days.

The Houses concerned were all thoroughly inspected, and, where any sanitary defects were discovered, these were attended to.

TYPHOID FEVER (1).

Only 1 case of Typhoid Fever occurred in the district during 1907, a figure which exhibits a very marked decrease over any return during my six years of office. The average number of cases which have been notified in the past being nearly 11 per year. The highest number was in 1902, when 23 cases occurred; in 1901 there were 18. The great majority of these occurred in a block of houses in Balby, which was in such an insanitary condition that I had to condemn it. The case of Enteric Fever of this year occurred in King Edward Road. The patient was removed to hospital, where, after a comparatively short stay of 27 days, she was discharged cured.

ERYSIPELAS (2).

Two cases of Erysipelas were notified in 1907, 1 in Balby and 1 in Hexthorpe. This number is very much less than is customarily notified, the average number being slightly over five per year.

PUERPERAL FEVER (1).

One case of Puerperal Fever was notified, the first since 1903, when 1 case was registered. The case occurred in Furnival Road, and was under the care of a midwife. The usual precautions were taken.

SCARLET FEVER (9).

Only 9 cases of Scarlet Fever occurred, in contrast with 68 in 1906. This, however, was the highest return of the previous six years ; the lowest incidence of the disease was in 1903, with 9 cases. This year's cases were more marked in type than those which characterised the epidemic of 1906. Of the 9 cases, 6 (3 from Balby and 3 from Hexthorpe) were removed to Hospital for treatment, where 1 terminated fatally. In each instance of the disease thorough examination of the house and surroundings was made, and wherever defects were found orders were given to have them remedied.

INFECTIOUS DISEASE HOSPITAL.

By arrangement with the Corporation of Doncaster, the Urban District of Balby and Hexthorpe has the right to have cases of Infectious Disease treated in either of their Hospitals.

The Corporation have two Infectious Disease Hospitals, both of which are situated outside the Borough. One is used for the isolation of Scarlet Fever, Diphtheria, and Enteric Fever, and the other is used solely for cases of Small-pox.

The Small-pox Hospital is situated in the Balby District, and is an admirable institution for the purpose. This Hospital, I am pleased to report, has been empty since July 31, 1905, but a Caretaker is in charge, and everything is in readiness should any case of the disease occur in the District.

The Hospital situate at Carr House is not a properly constructed hospital, it having been formerly an old residential house, and is therefore somewhat difficult and costly to work. The main building is divided into two sections, and used for Scarlet Fever and Diphtheria cases, whilst the Typhoid is a separate block, and is a very compact little structure ; the accommodation provided for this disease being 10 beds (5 for males and 5 for females).

During the year, 10 cases of Infectious Disease, viz. :—6 of Scarlet Fever, 3 of Diphtheria, and 1 of Enteric Fever were treated in this Hospital from the Balby-with-Hexthorpe District. The average length of stay in Hospital of the cases was 32·2 days.

ANNUAL SUMMARY, 1907.

Zymotic Admissions and Deaths during each Year from 1899 to 1907.

Disease.	1907	1906	1905	1904	1903	1902	1901	1900	1899	1899-1907 Total.
Small-pox										
Admitted	0	0	29	7	21	1	0	0	12	70
Died	0	0	0	0	1	0	0	0	3	4
Percentage of Deaths to Admissions... ...	0	0	0	0	4·7	0	0	0	25	5·7
Diphtheria.										
Admitted	12	5	9	21	26	23	12	11	12	131
Died	1	1	1	1	1	2	0	2	3	12
Percentage of Deaths to Admissions... ...	8·3	20	11·1	4·7	3·8	8·7	0	18·1	25	9·1
Typhoid Fever.										
Admitted	5	9	15	17	19	36	27	20	29	177
Died	0	1	0	2	5	7	1	4	1	21
Percentage of Deaths to Admissions... ...	0	11·1	0	11·7	26·3	19·4	3·7	20	3·4	11·8
Scarlet Fever										
Admitted	78	128	130	62	44	65	107	63	67	744
Died	1	2	7	0	1	0	1	1	0	13
Percentage of Deaths to Admissions ...	1·3	1·5	5·3	0	2·2	0	0·9	1·5	0	1·7

The following table gives the highest number of patients treated in Hospital at one time during the past eleven years :—

Year.	Date.	Highest Number of Patients on any day.
1897	February 23rd.	39
1898	November 4th.	17
1899	October 4th.	24
1900	October 24th.	29
1901	November 22nd.	35
1902	January 31st.	31
1903	August 5th.	20
1904	November 26th.	44
1905	February 2nd.	35
1906	March 30th.	35
1907	April 9th.	23

DISINFECTION.

The agreement with the Corporation of Doncaster also includes the disinfection of houses, bedding, etc., the method of room disinfection employed being by the Formalin Lamps; the bedding, clothing, etc., is removed to the Disinfecting Station at Carr House and there subjected to steam disinfection.

The following is a list of rooms disinfected and articles removed from infected houses (including premises where deaths have occurred from Phthisis) : -

Rooms	22
Beds	15
Pillows	50
Sheets	21
Blankets	32
Quilts	13
Mattresses	6
Sundries	29

SURVEYOR AND INSPECTOR'S REPORT FOR THE YEAR 1907

TO THE CHAIRMAN AND MEMBERS.

GENTLEMEN,

I have the pleasure in presenting my 11th Annual Report.

During the year, 410 Inspections have been made and 81 Nuisances found, arising from the following causes :—

Drains made up	14
Insanitary Ash Pits and Closets	12
Bad Paving round Yard Gullies	9
Drains Relaid not Sanitary	9
Defective Water Closets	7
Filthy Houses	3
Smoke	3
Water in Cellars	3
Sink Waste	3
Down Spouts...	2
Manure	2
Breeding Maggots	2
Depositing Sewage into Surface Drain	2
Overcrowding	2
Coal Gas	2
Storing Fish Tubs	1
Pig Keeping	1
Tipping Rubbish	1
Discharging Sewage on Open Ground	1
Urinal	1
Sink Waste not Disconnected	1

One nuisance is left unabated ; the owner is now arranging suitable positions to place Water Closets in lieu of existing privy middens. Four Water Closets have been put in and the privvy middens done away with. Many cautions have been given as regards cleanliness of houses, and repeated visits paid to see that the occupiers have carried out instructions. Few complaints have been received during the year as regards the keeping of pigs, although frequent visits have been made to certain places to see that all was kept in order. Pig keepers now seem to realise that dirty styes and accumulations of manure will not be allowed. A many small matters have beeen dealt with during the year which were not reported to the Council, the people concerned carrying out the wishes of the Council's Officials without trouble.

NEW BUILDINGS.

Dwelling Houses	130
Stables	1
Shops	17
Building Estates	2
Shed	2
Alterations to Houses	2
Bakehouse	1
Bath Rooms	2
Miscellaneous	2
New Schools	1
Brick Kiln	1

WATER DEPARTMENT.

Practically the whole of the water supply and distribution is in the hands of the Doncaster Corporation, both for Domestic and other purposes, Street Watering, Sewer Flushing, etc. A few houses only are supplied by wells, from which the water has been analysed and found fit for human consumption. One case of shortage in supply from a well is now being dealt with. There was not scarcity of water during the year from the supply mains.

INFECTIOUS DISEASE.

All cases of Infectious Disease that occur in the district are visited on notification being received from the Medical Officer, the source of water supply, milk supply, condition of drains, and closet accommodation, etc., being ascertained and a report of same sent to the Medical Officer. The school officials are notified as regards admitting children to school from houses where infectious disease has occurred. All drains are thoroughly flushed, the ashes pits emptied and lime-washed and disinfected, the house disinfection being done by the Medical Officer's Staff. As regards cases that are treated at home, visits are repeatedly paid to see that all things are kept in order. In Typhoid cases, Sealed Pans are sent and changed every other day, the contents being dealt with at the Sewage Farm.

Again I would call the attention of the Council to the necessity of having all small courts and alleys swilled down and disinfected at certain periods of the year; also after the emptying of closets and ashes pits.

SEWERS AND DRAINS.

The flushing of sewers is carried out regularly with town's water wherever possible. Valves have been fixed at certain places so as to enable flushing by holding up sewer for a time and then opening the valves. Gullies on Main Roads and Side Streets are cleansed at very frequent intervals, all solids being taken straight away in a sludge cart and put down on farmers' land or into disused quarries.

The two water-carts owned by the Council are fitted with flushing arrangements; each cart has a capacity of 300 gallons. The Council have received many complaints about watering of side streets during the summer months, but it is impossible to attend to all bye-roads with the two carts now at our disposal. No doubt the Council will take into consideration the advisability of purchasing another water-cart before summer comes. Another matter is the collection of sludge in winter from the roadside; another extra cart for carrying semi-liquid would be a great help in the matter of sludge collection. Perhaps the Council will see their way clear before another winter arrives, to purchase such a cart; it would also be useful in connection with the Scavenging of the district.

NEW WORKS, SEWERS, AND DRAINS.

No extensions have been made either to Sewers or Surface Water Drains during the year. In Kelham Street a portion of the Sewer has been relaid and lowered so as to get better fall for an area which was continually causing the Council trouble as regards the stopping up of the Sewer.

At Old Hexthorpe, a manhole was destroyed by gas explosion. The manhole was taken out and a new one built.

Two new ventilating columns have been fixed—one at Old Hexthorpe and one at Queen Street. In my opinion, more of these ought to be fixed in the district. In my monthly reports I pointed out positions where ventilating shafts would do good service.

SEWAGE FARM AND SEWAGE DISPOSAL.

The Sewage Farm is now in good working order. The tanks are acting well in taking out the solids from the raw sewage, and our affluent has had no complaint registered against it during the year.

The solids are being disposed of to the farmers in the district. The Storm Overflow has been in operation during the year, and has acted very satisfactorily, the storm water going straight to the area provided for it and getting into the effluent drains in a very satisfactory condition. Two new pumps of centrifugal type have been got into working order, and are dealing with the Sewage from the Low Level very satisfactorily. These pumps were put down to replace two of the rotary type, one 5″ and one 4″, the size of the new pumps being respectively 4″ and 3″. No repairs have been needed since they were put in. Certain crops are grown on different beds, and are disposed of to various tradesmen in the district. Of course the disposal of the sewage is the first consideration and growing of crops secondary. The whole of the farm has been laid out in beds with the exception of about half an acre, which can be made into an extra bed at a very small cost. The sewage from certain works was being delivered into our sewer in such a state as to cause a complaint from the Council.

The owners of the said works have now put down tanks for the treatment of their sewage, and it remains to be seen if they prove efficient.

STREET WORKS.

The only street made up during the year was a backway off Laughton Road, Hexthorpe. The Council have under consideration the putting in order of the following Backways:—The Crescent Backway High Road. Backway in Furnival Road, and Backway in Kelham Street. On the Balby and Worksop Main Road a portion of the road from Cross Street to the Chapel on Low Road has been raised and the footway flagged; also a length of rails which were on the footway causing it to be narrow, were set back, thus effecting a great improvement. This scheme had the sanction of the County Council.

SCAVENGING.

The Scavenging of the district has had the consideration of the Council for some time, and at last they decided to take the work into their own hands (previous to this the work was carried out by contract), and superintend it with their own officials, direct, and place the whole of the management in the hands of the Surveyor's Department.

The whole of the nightsoil collection is done during the night between the hours of 10 p.m. and 6 a.m., so that all material is cleaned away before people commence to get about. Since the Council have had the work carried out by their own staff, complaints as regards non-removal of nightsoil and privies not being attended to regularly have decreased materially, to removal of nightsoil and privies not being attended to regularly have decreased very materially, to give an instance :—During the six months, April to September, 1906, 177 complaints were received, and during the corresponding six months, 1907 (work done by Council), only 37 complaints were received, and this last three months the complaints have been practically nil, and no complaint has been registered as regards leaving streets in a dirty state after cleaning out privies.

As regards cost, the work being done by contracts in the early morning amounted to :—

		£	s.	d.
Contracts, Six Months	1905	145	0	0
Do. Do.	1906	137	10	0
Council Do.	1907	173	18	4

During the last nine months, the whole of the nightsoil removal was carried out during the night.

The loads removed were, in 1907 (six months), 716, the largest on record. 209 loads of Bell Cart Material were also removed during the said period. The cost per load of material of all kinds moved by contractor worked out at 3s. 9·28d. per load, and cost removing by Council, first six months under management, 3s. 9·12d. per load ; so that the work has been done as cheap with your own staff as by contract, and much more satisfactorily.

The following table shows the number of loads of material removed during the last seven years :—

	Nightsoil.	Rubbish.	Total.
1901	955 ...	450 ...	1405
1902	1076 ...	324 ...	1405
1903	1005 ...	418 ...	1423
1904	1053 ...	353 ...	1406
1905	1219 ...	316 ...	1535
1906	1182 ...	416 ...	1598
1907	1121 ...	595 ...	1716
Average number of loads	1087 ...	410 ...	1498

The figures for 1907 are :—

3 months, 1907, Contractor ...	247 ...	109 ...	356
9 months, 1907, Council	874 ...	486 ...	1360

Based on the population of 1906, the amount of material moved per head of population is ·21 per annum.

In practically all cases where new property is erected, the water carriage system is adopted, which is somewhat gratifying.

DAIRIES AND COWSHEDS.

There are eight dairies and cowsheds within the Council's area, and on being visited by the Sanitary Inspector their condition has been, on the whole, satisfactory. Cautions have been given about the storage of manure, and the occupiers have been willing to help the Officials in the matter of getting manure removed. The instructions as regards cleanliness, issued by the County Medical Officer, have been issued to each cowkeeper.

SMOKE NUISANCE.

Very few complaints have been received during the year as regards smoke nuisance ; a few cautions have been issued, and the proprietors of works have promised and are trying their best to minimise the output of dense smoke.

FACTORIES AND WORKSHOPS.

There are in the district the following factories and workshops :—

Brick Works	2
Joinery Works	4
Wire Works	1
Brass Works	2
Wagon Works	3
Mineral Water Works	1
Bakehouses	2
Laundries	4
Bootmakers	5
Dressmakers	2
Engineering Works	2
Saw Mills	1
Smithy	1

More than 40 persons are employed at seven of the above-named places, and at 23 less than 40.

At only one of the factories is it necessary to have provision made in case of fire, an iron staircase being fixed to the outside of the building.

With one exception, the whole of the larger buildings are provided with water closets.

The works not having the water carriage system is a railway wagon building works ; notice has been served upon the owners to provide proper closet accommodation consisting of latrines, and the owner has signified his intention of proceeding with the work at an early date. All laundries are properly drained and conveniences in order. The mess rooms in connection with the larger works are found to be kept in a very clean condition. The state of all the factories and workshops is found to be very satisfactory as regards ventilation and other sanitary arrangements. The majority of the large works are of quite recent erection.

ROADS AND STREETS.

The Main Roads in the district are repaired by the Urban District Council, on behalf of the County Council, who pay for the whole of the upkeep with the exception of the Street Watering. The length of the Main Roads is 2 miles 1 furlong.

The length of roads repairable by the Council is about 3 miles 2 furlongs. Just lately several side streets have been adopted, so that the length of other roads, as they are termed, will be materialy increased. Tar macadam has been put down on certain roads at Hexthorpe, and by all appearances is going to prove a great success, both as regards cost and upkeep ; also the scavenging costs much less than ordinary macadam. The Council have decided to lay out a length of road on the Gladwell System at Hexthorpe, and it is hoped to carry out the work in the spring of 1908. The system is highly spoken of by Surveyors who have made roads on this principle ; it is also a great step towards dealing with the dust nuisance.

I remain, Gentlemen,

Your obedient servant,

GEORGE GLEDHILL, M. R., San. Inst.,

Surveyor and Sanitary Inspector.

TABLE I.

Vital Statistics of Whole District during 1907 and previous Years.

BALBY-WITH-HEXTHORPE.

Year.	Population estimated to middle of each Year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in public Institutions beyond the District.	Nett Deaths at all Ages belonging the district.	
				Under 1 Year of Age.		At all Ages.						
		Number.	Rate*	Number.	Rate per 1,000 Births regist'd	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1897.	5,839	219	37·5	37	169	84	14·3	3	3	5	86	14·7
1898.	6,090	220	36·1	33	150	73	11·9	...	...	1	74	12·1
1899.	6,341	226	35·6	26	115	88	13·8	3	3	1	86	13·5
1900.	6,592	224	33·9	43	192	113	17·1	...	...	8	121	18·3
1901.	6,844	248	36·2	26	105	144	21·0	56	41	5	108	15·7
1902.	7,095	239	33·6	37	154·8	137	19·3	57	51	12	98	13·6
1903.	7,346	243	33	45	185·1	163	22·1	49	47	6	122	16·6
1904.	7,597	213	28	34	159	178	23·4	72	70	8	116	15·2
1905.	7,848	261	33·2	31	118	171	21·7	74	73	8	106	13·5
1906.	8,099	282	34·8	33	117	167	20·6	81	78	4	93	11·4
Averages for years 1897-1906.	6,969	237	34·0	34	143	131	18·7	39	36	6	101	14·5
1970.	8,350	238	28·5	32	134	191	22.8	90	88	3	106	12·7

* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

Total population at all ages, 6,781 at Census of 1901.

Number of Inhabited houses 1,445, at Census of 1901.

Average number of persons per houses 4·7 at Census of 1901.

Area of District in acres, exclusive of area covered by water, 1,613 acres.

Institutions within the District receiving sick and infirm persons from outside the District:—Union Workhouse and Balby Isolation Hospital.

Institutions outside the District receiving sick and infirm persons from the District:—Carr House Hospital, Wadsley Asylum, and Doncaster Royal Infirmary.

Other Institutions, the deaths in which have been distributed among the several localities in the District:—None.

Is the Union Workhouse within the District? Yes.

TABLE II.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1907.

BALBY-WITH-HEXTHORPE.

Notifiable Disease.	Cases Notified in Whole District.							Total Cases Notified in each Locality.		No. of Cases Removed to Hospital from each Locality.		Total Cases Removed to Hospital.
	At all Ages.	At Ages †—Years.										
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.	Balby	Hexthorpe	Balby	Hexthorpe	
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...
Cholera	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria including Membranous Croup	5	...	2	2	...	1	...	2	3	1	2	3
Erysipelas	2	...	...	...	...	1	1	1	1	...	...	...
Scarlet Fever	9	...	2	4	2	1	...	5	4	3	3	6
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	1	...	...	...	1	...	...	1	...	1	...	1
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever ...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	1	...	...	...	...	1	...	1	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...	...	...
*	...	...	...	...	...	...	...	...	...	...	...	...
Totals	18	...	4	6	3	4	1	10	8	5	5	10

Isolation Hospitals:—*Carr House (Infectious Diseases) Hospital, Carr House and Elmfield District.*

Balby (Small-pox) Hospital, Balby District.

TABLE III.

CAUSES OF, AND AGES AT, DEATHS DURING THE YEAR 1907.

BALBY-WITH-HEXTHORPE.

Causes of Death.	Deaths at the subjoined Ages of "Residents," whether occurring in or beyond the District.							Deaths at all Ages of "Residents" belonging to Localities, whether occurring in or beyond the District.							Total Deaths whether of "Residents" or "Non-Residents" in Public Institutions in the District.
	All Ages	Und'r 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and up-w'rds	Balby.	Hex-thorpe						
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	2	1	1	...	...	...	...	1	1	...	...	...	...	...	...
Scarlet Fever... ...	1	...	...	1	...	...	...	...	1	...	...	...	...	...	...
Whooping-cough ...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Diphtheria and Membranous Croup	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...
Croup	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever—Typhus ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever—Enteric ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever—Other continued	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza ...	3	1	...	...	...	1	1	1	2	...	...	...	...	...	1
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa	7	5	2	...	...	...	...	4	3	...	...	...	...	...	...
Enteritis	2	1	1	...	...	...	...	1	1	...	...	...	...	...	...
Puerperal Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Septic Diseases.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis (Pulmonary Tuberculosis.)	4	...	...	1	...	3	...	3	1	...	...	...	...	...	7
Other Tubercular Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Cancer, malignant disease	4	...	...	...	...	2	2	3	1	...	...	...	...	...	5
Bronchitis	15	6	1	...	...	1	7	8	7	...	...	...	...	...	9
Pneumonia	11	2	3	1	...	3	2	6	5	...	...	...	...	...	7
Pleurisy	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Diseases of Respiratory Organs ...	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...
Alcoholism } Cirrhosis of Liver } ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Venereal Diseases ...	1	1	...	...	...	...	...	...	1	...	...	...	...	...	3
Premature Birth ...	8	8	...	...	...	...	...	5	3	...	...	...	...	...	...
Diseases and Accidents of Parturition ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Heart Diseases ...	12	...	...	...	...	5	7	8	4	...	...	...	...	...	7
Accidents	3	...	...	...	1	2	...	3	...	...	...	...	...	...	1
Suicides	1	...	...	...	1	...	...	...	1	...	...	...	1	...	...
All other causes ...	29	6	5	...	...	9	9	20	9	...	...	...	...	...	48
All Causes ...	106	32	14	3	2	27	28	64	42	...	...	...	...	...	90

TABLE IV.

INFANTILE MORTALITY DURING THE YEAR 1907.

Deaths from stated Causes in Weeks and Months under One Year of Age.

BALBY-WITH-HEXTHORPE.

CAUSE OF DEATH.		Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Month.	11-12 Months.	Total Deaths under 1 year.
All Causes	Certified	9	..	2	1	12	2	1	3	1	1	3	2	2	1	3	1	32
	Uncertified	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Common Infectious Diseases.	Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Chicken-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Measles	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
	Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Diphtheria: Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Whooping Cough	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
Diarrhœal Diseases.	Diarrhœa, all forms	..	..	..	..	..	1	..	2	..	1	..	..	..	..	1	..	5
	Enteritis Muco-enteritis Gastro-enteritis	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
	Gastritis, Gastro-intestinal Catarrh	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wasting Diseases.	Premature Birth	7	..	..	1	8	..	..	..	..	..	..	..	..	..	..	..	8
	Congenitel Defects	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
	Injury at Birth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Want of Breast-milk (Starvation)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Atrophy, Debility, Marasmus	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	2
Tuberculous Diseases.	Tuberculous Meningitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Tuberculous Peritonitis Tabes Mesenterica	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Tuberculous Diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Causes.	Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Syphilis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Rickets	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Meningitis (*not Tuberculous*)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
	Convulsions	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
	Bronchitis	..	..	1	..	1	..	1	..	..	..	1	1	..	1	1	..	6
	Laryngitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Pneumonia	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	2
	Suffocation, overlying	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Causes	..	..	1	..	1	..	..	..	..	..	..	..	1	..	1	..	3
		9	..	2	1	12	2	1	3	1	1	3	2	2	1	3	1	32

District of BALBY-WITH-HEXTHORPE. Population (estimated to middle of 1907) 8,350.

Births in the year: Legitimate, 236; Illegitimate, 2.

Deaths in the year: Legitimate Infants, 29; Illegitimate Infants, 3.

Deaths from all Causes at all Ages, 106.